

SUBJECT INDEX

- Aboriginal conceptions and strategies of learning 396-412
- Adolescents, social self-concepts 415-427
- Adults, distance learning in South Pacific 179-200
- Adult second language acquisition, writing vs. speech 38-52
- Algebra word problems, self-explanations in solving 203-218
- Arithmetic, mental computation, strategic flexibility 221-244
- Arithmetic Scrap Paper Test(ASPT) 230
- Artifacts, self-explanations and algebra word problems 204
- Aspects of Self Knowledge(ASK) Inventory 418, 419, 421-425
- Assertive action, classroom computer tasks 437
- Assessment of writing 7
- Assessment in zone of proximal development 137-150
- Attrition rates, Aboriginal and Torres Strait Islander students 397
- Australia, conceptions and strategies of Aboriginal and Torres Strait Islander students 396-412
- Authentic assessments 254
- Authenticity 333
 - didactics 334-341
 - language learning 343-351
 - role of the teacher 351-353
- Backtracking, L2 writing 14-34
- Backtranslation, L2 writing 16, 17, 25
- Behaviour, reading skills 154
- Belonging, adolescents 417-427
- Biology-lab 295, 296
- Borner model of L2 writing 76
- British Ability Scale Word Definition Test 435
- Categorical explanation 206, 208, 210, 213, 216
- Categorization, adolescents 416
- Cognition and Technology Group at Vanderbilt(CTGV) 256, 257, 259, 261, 263, 264
- Cognitive-motivational process model 293, 294, 304-306
- Cognitive psychology 252
- Collaborative learning
 - classroom computer tasks, gender effects 433-444, 447-461
 - science simulations, gender effects 463-478
- Collaborative learning tasks 314-328
 - social interaction 313
- Community of learners 146
- Composing process 3
 - L2 writing, backtracking 14, 19-23
- Computers, social interaction by primary school children 431-444
- Computer-based problem solving, gender and social interaction 447-461, 483-495
- Computer-supported co-operative learning in science, group and gender effects 463-478
- Computer-supported co-operative work in physics 466, 468
- Concept learning 312
 - collaborative learning tasks 314-328
 - elaboration 319, 326
 - social interaction 313, 317
- Concept mapping 324, 326
- Conceptions of learning, Aboriginal and Torres Strait Islander university students 394-412
- Conceptual change in science 466, 471
- Conceptual knowledge, hypothesis testing 362-389
- Conceptual understanding, mental computation 221-244
- Conflict, science learning, groups and gender 466-470
- Consensus, conceptual and procedural knowledge 363, 381-386
- Contextual knowledge, design expertise 114, 117, 124
- Contrastive rhetoric 5
- Coping behaviour, motivational orientations and reading skills 155-175
- Correlational problems, solving, secondary school students 273-290
- Cultural development 268
- Cultural influences on learning 180, 396, 407-412
- Debate 364 376, 381, 386
- Design experiments, learning environments 257
- Design expertise 113-134
- Diagnostic questions, understanding in science learning 497-526

- Didactics, content learning and authenticity 334, 356
- Disciplinary didactics 337
- Discourse
 solving correlational problems 274-278
 teacher-student interaction 270
- Distance learning, South Pacific 179-200
- Domain-specific strategic knowledge, expert
 problem-solving 128-131
- Dynamic assessment 139-142
 relationship to ZPD 142-144
- Ego-defensiveness 155, 157, 159, 161, 163-166, 169, 170
- Elaboration
 collaborative learning tasks 315, 319-328
 concept learning 313, 317
- English as a second language
 adult writing 56-69
 backtracking in writing 13-34
 writing vs. speech 38-52
- Epistemological understanding, science learning 497-526
- Expert guidance 363, 376, 381, 382, 385
- Expertise, design 113-134
- Explanations, problem solving 203, 208
- External representations, self-explanations 204, 205
- Flexibility, problem solving strategies 223, 241
- Formal learning 395
 Aboriginal and Torres Strait Islander students 396, 398, 400-412
- Formative assessment 144-149
 relationship to ZPD 146
- Formulating, L2 writing 74, 81
- Gender
 interactions during computer-based learning 431-444, 447-461, 463-478, 483-495
 self perceptions, adolescents 423
- General genetic law of cultural development 268
- Genre 339-341, 346, 353, 356
- Genre appropriation, development of self-regulation 270, 272, 282, 286, 287
- Graphs, correlational problem solving 273
- Group working 346-351, 355
 computer-based learning, gender effects 447-461
 science simulations, gender effects 463-478
- Group tasks, hypothesis testing 371, 374, 381
- Hayes and Flower model of L1 writing 2, 3, 74, 75
- Hypothesis testing in science 361-389
- Indexation 347
- Individuality, adolescents 417-427
- Informal learning 395
 Aboriginal and Torres Strait Islander students 396, 398, 400-412
- Informative systems, acquisition of design expertise 113-134
- Instructional psychology, marrying theory and school practice 249-264
- Instructional technology 256
- IQ measures 140
- Journal writing, L2 50
- Keseling model of L2 writing 76
- Krings's model of L2 writing 77, 78
- L1 writing
 Hayes and Flower's model 2, 3, 74, 75
 psycholinguistic issues 108-110
- L2 writing 3, 101-105, 107-112
 acquisition of English syntax 37-52
 backtracking 13-34
 building models of adult writing instruction 55-69
 subprocesses 73-97
 teaching 7
- Language learning, authentic experiences 343-351
- Learning
 conceptions in different cultures 180
 South Pacific 182-200
 cultural influences 396
 motivation, performance and persistence 293-307
- Learning environments
 Aboriginal and Torres Strait Islander students 397
 design of 254, 256-264
- Learning Potential Assessment Device(LPAD) 140, 141
- Learning strategies 395
 Aboriginal and Torres Strait Islander university students 402
- Levelt's model of speaking 88
- Looking at Technology in Context(LTC) 257, 259, 264
- Mastery confidence 295
- Mathematics
 designing a teaching-learning environment 259-263

- mental computation and conceptual understanding 221-244
- research-practice gap 253
- self-explanations 203-218
- Mathematization 224
- Mediation, classroom tasks, girls, boys and computers 433-444
- Memorization 180, 181
 - distance learners in the South Pacific 184-200
 - meanings 197-199
 - relation to understanding 191-197
- Mental arithmetic, strategic flexibility 221-244
- Mental computation, conceptual understanding 221-244
- Metacognitive awareness, procedural learning 386-388
- Methodology, epistemological understanding in science learning 497-526
- Motivation 294
 - interaction with cognition 294
 - learning 295
 - persistence 299, 301, 306
- Motivational orientation, reading skills, development of 153-175
- Oral exchange 343, 347
- OS-400 159, 160
- Performance, motivation and persistence 294-307
- Persistence, motivation and performance 294-307
- Phenomenography, distance learners in the South Pacific 179, 183
- Phonemic awareness 160
- Practical work, science learning 464
- Premises for action 341, 343-346, 355
- Primary classroom, computers, social interaction 431-444
- Primary education, designing a teaching-learning environment for mathematical problem solving 259-263
- Problem solving
 - computer-based, gender and interaction 447-461, 483-495
 - correlation problem, self-regulation 273-290
 - designing a teaching-learning environment 259-263
 - motivation and persistence 294-307
 - procedural flexibility 223
 - self-explanations 203-218
 - theoretical framework 268, 271
- Procedural flexibility, mental computation 222-244
- Procedural knowledge, hypothesis testing 362-389
- Procedure Valuing List 231, 233
- Professional learning 114, 120, 125, 130
- Program of Instrumental Enrichment 141
- Project learning, design expertise 117, 118, 121-131
- Puckland 468
- Qualitative discourse analysis 277-278
- Quantitative discourse analysis 274-277, 285
- Questionnaire on Current Motivation 297, 300
- Reading skills, motivational orientations 154-175
- Realistic mathematics 222, 223, 224
- Realistic Program Design 224-230
- Reasoning, epistemological 503-522
- Reasons for learning 395
 - cultural influences 396, 398, 400
- Reciprocal teaching 144
- Rereading, L2 writing 16, 24, 33
- Research-practice gap 251, 255
- Revision, L2 writing 77
- Saussurian concepts 331-334
- School genre 339-341, 354, 356
- Science
 - conceptual and procedural learning 362
 - epistemological understanding 497-526
 - gender effects on learning 463-478
 - hypothesis testing 361-389
- Second language acquisition and writing 101-105, 107-112
 - backtracking 12-34
 - building models of adult instruction 55-59
 - multi-disciplinary approach 1-7
 - psycholinguistic issues 108
 - subprocesses 73-97
 - writing vs. speech 37-52
- Secondary school students, solving correlational problems 267-290
- Self-categorization, adolescents 416-427
- Self-concepts, adolescents 415-427
- Self-explanations, in solving algebra word problems 203-218
- Self-regulation, development in social contexts 268-290
- Semiotics 335
- SharedARK 466, 474
- Situation models 337-341, 343, 354
- Social comparison, computer-based problem solving 483-495
- Social dependence 155, 157, 159, 161, 163-166, 169, 170
- Social interaction
 - collaborative learning task, concept learning 313
 - computers, primary school classroom 431-444

- Social self-concepts, adolescents 415-427
 Sociocultural psychology, self-regulation 268-290
 South Pacific, distance learners 179-200
 Speech - writing development 38
 Strategic knowledge, design expertise 114, 117, 124, 129
 Strategies for learning 395
 Aboriginal and Torres Strait Islander university students 402-412
 Strategy choice, conceptual understanding 226, 242
 Syntax, L2, writing vs. speech 44-45, 49

 Task design, science, groups and gender 471-474
 Task orientation 155, 157, 159, 161, 163-166, 169, 170
 Teachers, role in learning 351
 Teaching - assessment integration 138-149
 Teaching of writing 6
 Text structure 4
 Theory-practice gap, instructional psychology 251, 252, 255-259
 designing a teaching-learning environment 259-263
 Torres Strait Islander students, conceptions and strategies of learning 396-412
 Transactive interaction 436
 Transformation between external representations 205
 Transformation, self-explanation 208
 Transition from other to self-regulation 267-290
 Translating, L1 writing model 75

 Underachievement and motivation 154

 Understanding 189, 181, 394
 Aboriginal and Torres Strait Islander students 400, 407
 distance learners in the South Pacific 184-200
 conceptions 189
 relationship with learning 187
 relationship with memorization 191-197
 nature of science 497-526
 premises 343

 Verbal ability(WISC-R) 160, 161
 Verbal interaction, concept learning 317, 319
 Verbal mediation, self-explanations 204
 Verbalization, problem solving, gender 456
 Voices, self-regulation 269, 286

 Word problems
 mental computation 221
 self-explanations 204
 Word reading skill(OS-400) test 159, 160
 Writing 1
 context of 5, 6
 models 2, 3, 38, 55-69, 74-77
 process of 2-4, 14, 61, 62, 73
 product of 4-5
 second language 3, 101-105, 107-112
 acquisition of English syntax 37-52
 adult, building models of instruction 55-69
 backtracking 13-34
 subprocesses 73-97
 teaching of 6-7

 Zone of proximal development, assessment of-
 or in- 137-150

